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*Secretary for
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State Water Resources Control Board

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Arnold Schwarzenegger
Governor

JAN 18 2007

January 16, 2007

Ms. Dale Hoffman-Floerke
Colorado River and Salton Sea Office
Department of Water Resources
1416 9th Street, Room 1148-6
Sacramento CA 95814

Dear Ms. Hoffman-Floerke:

SALTON SEA RESTORATION PROGRAM DRAFT PROGRAMMATIC ENVIRONMENTAL IMPACT REPORT (PEIR) REVIEW COMMENTS

The State Water Resources Control Board continues to fully support Resources Agency efforts to complete the Salton Sea Restoration Program PEIR and to work with the Salton Sea Advisory Committee and other stakeholders to identify a preferred alternative for the restoration of the Salton Sea ecosystem. We believe it is essential to make provisions for permanent protection of the wildlife dependent on that ecosystem.

Based on our evaluation of project alternatives, we have three overall comments for consideration in all the alternatives. First, every effort should be made to ensure that the water quality objectives and beneficial uses for surface waters in the Salton Sea that have been established by the Colorado River Basin Regional Water Quality Control Board (Colorado River Basin Water Board) are achieved. Second, the outcomes from the ongoing Total Maximum Daily Loads (TMDL) program, particularly for siltation/sedimentation, nutrients, and selenium during the lifetime of the Restoration Program, should be considered in the evaluation of alternatives. Finally, improvement in New River water quality from operations of new wastewater treatment and disposal projects for the City of Mexicali should be considered.

We offer the following general comments for your consideration:

- Water Treatment - Additional water treatment (for sediment, nutrients, and selenium) may be required for all alternatives, depending on the success of the Colorado River Basin Water Board TMDL program, the type of habitats created, and the operation and maintenance of these habitats.
- Historical Selenium and Phosphorus Removal Capacity of the Salton Sea - Historically, the Salton Sea has effectively removed both selenium and phosphorus transported to the Sea from tributary rivers and agricultural drains.

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To the extent possible, these mechanisms should be preserved or recreated and considered in evaluation of alternatives.

- Early Start Habitat - Creation of early start habitat should be incorporated into all alternatives, with the option of incorporating it into the long-term saline habitat acreage.
- Saline Habitat Location - Earlier construction of some of the saline habitat, on land that is currently not exposed sea bed, should be considered if current plans for 2000 acres of "early start" habitat are not sufficient to preserve Salton Sea fish and wildlife during Phase I or II.
- Local Funding - A mechanism for local cost sharing of capital and Operation and Maintenance costs should be identified for all alternatives.
- Public Law 108-361 - Alternatives and recommendation from the Federal Feasibility Study on a preferred alternative for Salton Sea restoration should be reviewed and incorporated in the PEIR, if feasible within the schedule for completing the final PEIR document.

Specific comments include:

- Page 2-9, para 3 should read "these flows are almost 4..."
- Page 2-23, para 4. For the estimated 20 percent of years when inflows may not be sufficient over the project lifetime, a priority between maintenance of salinity targets or maintenance of elevation targets in the partial seas or concentric lakes or rings will be needed.
- Page 2-24, para 2. Water treatment for selenium and or phosphorus may be required for all alternatives if Colorado River Basin Water Board TMDL objectives are not met, and H₂S and ammonia treatment may be needed for all partial sea alternatives. Would water treatment also be incorporated to control seasonal H₂S and ammonia releases in localized areas near population or recreation of fish habitat in alternatives that contain deep Marine Sea elements?
- Page 2-24, para 9. Unless treated before discharge to the Saline Habitat Complex, selenium concentrations in the New and Alamo Rivers and agricultural drains would not be diluted and should be evaluated.
- Page 2-24, para 10. Same as above. In addition, research may be needed on the problems that may be associated with long term pumping and blending of Brine Sink contents (up to 200,000 ppm) with other Saline Habitat Complex inflows.
- Page 3-62, para 5. Berm construction for Alternative 1 and all other alternatives will require disturbance of existing sediments, some of which may contain selenium, phosphorus, hydrogen sulfide, ammonia, or other contaminants which may be released to the water column or leach from exposed embankment soils. This may be particularly true of deeper sediments displaced by marine sea levee construction.

- Page 3-64, para 1. Partitioning of the Brine Sink to provide areas with less than 200,000 ppm salinity may have value for all alternatives.
- Page 3-69 para 6. The use of Geotube berms is a construction technique that could be evaluated and allied to all or portions of all alternatives.
- Page 3-75, para 6. Why would water treatment for phosphorus removal only be provided for the Alamo River? New River phosphorus concentrations currently exceed concentrations in the Alamo River (see Table 6-3).
- Page 4-12, para 7. CEA is the State Water Commission for the State of Baja California, not the "National Water Commission."
- Page 4-19, para 2. The Las Arenitas project has been constructed and will begin operation and remove millions of gallons per day of raw wastewater and associated nutrients, pathogens, and toxics from the New River in early 2007. Las Arenitas may also be expanded to accommodate wastewater flows from Mexicali beyond 2014.
- Page 6-8, para 5. Additional research may be needed to locate the organically rich sediments which contain the selenium. If these areas can not be avoided, research may be needed to determine if exposure of these sediments to the oxidized, well-mixed contents of shallow impoundments or to the air in exposed berms, barriers or perimeter dikes, or playa areas will release the selenium to the water column.
- Page 6-18, para 3. Same comment as above, except for phosphorus contained in Salton Sea sediments.
- Page 6-26, para 4. Explain why selenium concentrations would remain unchanged if sediment deposits are disturbed, exposed to oxygen, and if the conditions that have historically led to selenium loss/control in the Salton Sea are modified in various impoundments (see page 6-8, para 5).
- Page 6-28, Table 6-4. See above comment.
- Page 6-29, Table 6-5. For Alternatives 5, 6, 7, and 8, why are existing deep sea phosphorus deposition processes assumed to stop?
- Page 6-32, para 4. Wouldn't increased resuspension of orthophosphate from bottom sediments and release of orthophosphate from pore water occur in shallow well-mixed impoundments in all alternatives?
- Page 6-32, para 9. What will happen to influent or existing sediment phosphorus or selenium under wind mixed conditions in Saline Habitat Complex modules in most alternatives or in the Concentric Rings or Lakes in Alternatives 4 and 5?
- Page 6-35, para 9. Salinities in Saline Habitat Complexes can be adjusted to operate at ranges other than 30,000 to 200,000 ppm salinity.
- Page 6-37, para 3. Is additional research needed to determine if water temperature variation in shallow impoundments exceed fish tolerances?
- Page 7-2, para 8. Does the 1000 acre-foot per year of groundwater discharge to the Salton Sea include groundwater discharge to the New River, Alamo River (see para 5) or the Whitewater River?

- Page 8-14, para 1. There should be a discussion in the PEIR of how the various alternatives may change the anoxic processes and deep water disposal of sediments that currently are responsible for making selenium not biologically available or accessible. Not all alternatives will treat selenium equally. What selenium concentrations would be expected in the Saline Habitat Complex, the various Concentric Rings or Concentric Lakes? Will selenium concentrate along with salinity as it is carried from pond to pond in the Saline Habitat Complex? How will these selenium concentrations impact benthic organisms that may come into contact with selenium containing organic sediments (dead phytoplankton, algae, invertebrates, or fish)? Complex or the various rings or lakes in Alternatives 3 or 4?
- Page 8-49, para 2. Is periodic physical trapping and moving of pup fish a viable alternative to construction of Pupfish Channels in various alternatives?
- Page 10-29, para 3. Is additional research needed to determine if water efficient vegetation can be established and maintained long-term with drip irrigation systems using water with the high mineral contents of Salton Sea inflows?
- Table 11-4. How do the various alternatives comply with the Torres Martinez Desert Cahuilla Land Use, Zoning and Development Plan goals of "protecting and preserving lands, culture and traditions" of the tribe, other than changes in the amount of land inundated by the Salton Sea or a Restoration Alternative?
- Page 23-8, para 1. When completed and released for public comment, the Public Law 108-361 Federal Feasibility Study should be incorporated into the PEIR by Appendix or reference.

If you have any questions regarding these comments, please contact me at (916) 341-5615 or Mr. Bart Christensen, Division of Water Quality, at (916) 341-5655.

Sincerely,



Thomas Howard
Acting Executive Director

cc: See next page.

JAN 18 2007

Ms. Dale Hoffman-Floerke

- 5 -

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